

Twin Commander (Gulfstream/Rockwell/ Aerocommander 500, 600 and 700) Series Aeroplanes

AD/AC/92

Wing Skin Near Main Landing Gear

6/95

Applicability: All models except 690C and all 695 series.

Requirement: 1. Location:

With your head up inside the wheel well you will see the heavy forgings which contain the bushings for the main landing gear trunnion. Note that each forging has two fingers which poke up through cutouts in the lower surface of the wing. It is the forward cutouts which are to be inspected for cracks.

2. Inspection from Underneath:

Clean the external skin around each forward cutout. With a mirror and a strong light, look for cracks in the external skin near the forward and aft radii of each forward cutout. (The aft radius may be hard to see.)

3. Inspection from the Top:

Remove the access panel in the top of the nacelle, then the underlying access panel in the top of the wing, to view the forward cutouts from inside the wing. With a mirror and a strong light, look for cracks in the internal doubler near the forward and aft radii of each forward cutout.

Compliance: Inspect at the next periodic inspection after 25 May 1995.

If not cracked, repeat the inspection every 1000 or fewer hours, or every 500 or fewer hours while the aircraft is flying low level surveys.

If only the skin is cracked, or if the crack in the doubler can be smoothly dressed out and dye checked without removing more than 6 mm from the edge, and if the skin crack has not grown past the nearest rivet, the aircraft may remain in service for up to 500 hours if the crack is re-inspected every 250 or fewer hours, or every 125 or fewer hours while the aircraft is flying low level surveys. The area must be repaired before further flight if the skin crack has grown beyond the nearest rivet, or a doubler crack cannot be dressed out as just described.

Background: Two aeroplanes have been found with cracks at cutouts in the lower surface of the wing. Both aeroplanes were 500S models, and both were flying low level surveys, however there is no reason to believe that other Aero Commanders with a similar wing won't suffer the same problem. The cracks might be missed during routine maintenance, so special inspections have been specified to prevent major cracking and loss of wing strength.